



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,868	10/26/2000	Akira Higeta	684.3101	3187

5514 7590 05/06/2003

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

GRAINGER, QUANA MASHELL

ART UNIT PAPER NUMBER

2852

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/695,868

Applicant(s)

Higeta et al.

Examiner

Quana Grainger

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 6, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 12 6) ☐ Other:

Art Unit: 2852

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagashima. The remanufacturing method of remanufacturing a process cartridge comprising: (a) a step of preparing a used process cartridge which comprises a toner developing container, a cleaning container and pins for coupling the toner developing container and the cleaning container at opposite longitudinal ends of the process cartridge; the toner developing container including a toner accommodating portion, a toner supply opening, a developing roller and a developing blade; the cleaning container including an electrophotographic photosensitive drum; (b) a container separating step of separating the process cartridge into the toner developing container and the cleaning container by disengaging the pins from the process cartridge; (c) a developing roller dismounting step of dismounting the developing roller from the toner developing container separated by said container separating step; (d) a developing blade dismounting step of dismounting the developing blade from the toner developing container separated by said container separating step; (e) an elastic member mounting step of mounting an elastic member at

Art Unit: 2852

a position spaced from the toner accommodating portion to a longitudinally inside portion of an end seal provided adjacent each of opposite longitudinal ends of the developing roller dismounted in said developing roller dismounting step or another developing roller; (f) a developing blade mounting step of mounting the developing blade dismounted in said developing blade dismounting step or another developing blade on the toner developing container separated in said container separating step or another toner developing container; (g) a developing roller mounting step of mounting the developing roller dismounted in developing roller dismounting step or another developing roller on the toner developing container having the developing blade mounted in said developing blade mounting step and separated in said container separating step or the another toner developing container having the developing blade mounted in said developing blade mounting step; (h) a toner refilling step of refilling the toner into the toner accommodating portion of the toner developing container having the developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step and being separated in said container separating step or a toner accommodating portion of the another toner developing container having the developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step; and (i) a container coupling step of coupling the toner developing container having the developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step and being separated in said container separating step or the another toner developing container having the

Art Unit: 2852

developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step with the cleaning container separated in said container separating step or another cleaning container by engaging the pins disengaged in said container separating step or other pills into them (column 9, line 9- column 10, line 7).

The method further comprising a flexible sheet mounting step of mounting after said elastic member mounting step and, before said toner refilling step, a flexible sheet to the toner developing container separated in said container separating step or the another toner developing container so as to extend along the longitudinal direction of the developing roller when the developing roller is mounted to the toner developing container separated in said container separating step or the another toner developing container (column 10, lines 23-51). In said flexible sheet mounting step, each of longitudinal ends of the flexible sheet extends over a surface of the elastic member and a part of the end seal. The method further comprising a first and second side seal mounting step of mounting, after said flexible sheet mounting step, a first side seal continuously on a longitudinal end of the flexible sheet mounted on the toner developing container separated in said container separating step or the another toner developing container and on the toner developing container separated in said container separating step or the another toner developing container, and a second side seal continuously on the other longitudinal end of the flexible sheet mounted on the toner developing container separated in said container separating step or the another toner developing container and on the toner developing container

Art Unit: 2852

separated in said container separating step or the another toner developing container (column 10, line 19-column 12, line 44).

Nagashima teaches a remanufacturing method of remanufacturing a process cartridge comprising: (a) a step of preparing a used process cartridge which comprises a toner developing container, a cleaning container and pins for coupling the toner developing container and the cleaning container at opposite longitudinal ends of the process cartridge; the toner developing container including a toner accommodating portion, a toner supply opening, a developing roller and a developing blade; the cleaning container including an electrophotographic photosensitive drum; (b) a container separating step of separating the process cartridge into the toner developing container and the cleaning container by disengaging the pins from the process cartridge; (c) a developing roller dismounting step of dismounting the developing roller from the toner developing container separated by said container separating step; (d) a developing blade dismounting step of dismounting the developing blade from the toner developing container separated by said container separating step; (e) an elastic member mounting step of mounting an elastic member at a position spaced from the toner accommodating portion to a longitudinally inside portion of an end seal provided adjacent each of opposite longitudinal ends of the developing roller dismounted in said developing roller dismounting step or another developing roller; (f) a flexible sheet mounting step of mounting a flexible sheet to the toner developing container separated in said container separating step or another toner developing container so as to extend along the longitudinal direction of the developing roller on which the elastic member is

Art Unit: 2852

mounted in said elastic member mounting step when the developing roller on which the elastic member is mounted in said elastic member mounting step is mounted to the toner developing container separated in said container separating step to which the flexible sheet is mounted in said flexible sheet mounting step or to the another toner developing container to which the flexible sheet is mounted in said flexible sheet mounting step; (g) a first and second side seal mounting step of mounting a first side seal continuously on a longitudinal end of the flexible sheet mounted on the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step and on the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and being separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step, and mounting a second side seal continuously on the other longitudinal end of the flexible sheet mounted on the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step and on the toner developing container having flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; (h) a developing blade mounting step of mounting the developing blade dismounted in said developing blade

Art Unit: 2852

dismounting step or another developing blade oil the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated. said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; (1) a developing roller mounting step of mounting the developing roller dismounted in said developing roller dismounting step or another developing roller on the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; (j) a toner refilling step of refilling the toner into the toner accommodating portion of the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or a toner accommodating portion of the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; and (k) a container coupling step of coupling the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step with the cleaning container separated in said container separating step or another cleaning container by engaging the pins disengaged in said container separating step or other pins into them.

The elastic member is mounted on a side of the end seal. The end seal is made of a plastically deformable material. The toner refilling step is carried out through a toner filling

Art Unit: 2852

opening after said elastic member mounting step, said developing blade mounting step, and said developing roller mounting step. The developing blade mounting step, a new developing blade or a used developing blade is mounted. In said developing roller mounting step, a new or used developing roller is mounted. The cleaning container includes a cleaning blade mounted thereon and accommodates developer removed from the electrophotographic photosensitive member, and wherein prior to said container coupling step, the electrophotographic photosensitive drum and the cleaning blade are dismounted from the cleaning container, and toner which has been removed from the electrophotographic photosensitive drum and accommodated in the cleaning container, is removed.

Nagashima teaches a method wherein after the toner is removed, a new or used electrophotographic photosensitive drum and a new or used cleaning blade are mounted. The toner supply opening supplies the toner accommodated in the toner accommodating portion to the developing roller, wherein said remanufacturing method is implemented by pulling out a toner seal, for sealing the toner supply opening provided to supply the toner accommodated in the toner accommodating portion to the developing roller, to supply toner accommodated in the toner accommodating portion to the developing roller.

Nagashima teaches a remanufacturing method of remanufacturing a process cartridge comprising: (a) a step of preparing a used process cartridge which comprises a toner developing container, a cleaning container and pins for coupling the toner developing container and the cleaning container at opposite longitudinal ends of the process cartridge; the toner developing

Art Unit: 2852

container including a toner accommodating portion, a toner supply opening, a developing roller, and a developing blade; the cleaning container including an electrophotographic photosensitive drum; (b) a container separating step of separating the process cartridge into the toner developing container and the cleaning container by disengaging the pins from the process cartridge; (c) a developing roller dismounting step of dismounting the developing roller from the toner developing container separated by said container separating step; (d) a developing blade dismounting step of dismounting the developing blade from the toner developing container separated by said container separating step; (e) an elastic member mounting step of mounting an elastic member at a position spaced from the toner accommodating portion to a longitudinally inside portion of an end seal provided adjacent each of opposite longitudinal ends of the developing roller dismounted in said developing roller dismounting step or another developing roller; (f) a toner refilling step of refilling the toner into the toner accommodating portion of the toner developing container having the elastic member mounted in said elastic member mounting step and being separated in said container separating step or a toner accommodating portion of the another toner developing container having the elastic member mounted in said elastic member mounting step and through the toner supply opening of the toiler developing container having the elastic member mounted in said elastic member mounting step and being separated in said container separating step or through a toner supply opening of the another toner developing container having the elastic member mounted in said elastic member mounting step; (g) a developing blade mounting step of mounting the developing blade dismounted in said

Art Unit: 2852

developing blade dismounting step or another developing blade on the toner developing container separated in said container separating step or another toner developing container; (h) a developing roller mounting step of mounting the developing roller dismounted in said developing roller dismounting step or another developing roller on the toner developing container having the developing blade mounted in said developing blade mounting step and separated in said container separating step or the another toner developing container on which the developing blade is mounted in said developing blade mounting step; and (1) a container coupling step of coupling the toner developing container having the developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step and being separated in said container separating step or the another toner developing container having the developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step with the cleaning container separated in said container separating step or another cleaning container by engaging the pins disengaged in said container separating step or other pins into them. The method further comprising a flexible sheet mounting step of mounting, after said elastic member mounting step and before said toner refilling step, a flexible sheet to the toner developing container separated in said container separating step or the another toner developing container so as to extend along the longitudinal direction of the developing roller when the developing roller is mounted to the toner developing container separated in said container separating step or the another toner developing container. In said flexible sheet mounting step, each of longitudinal ends of the flexible sheet

Art Unit: 2852

extends over a surface of the elastic member and a part of the end seal. The method further comprising a first and second side seal mounting step of mounting, after said flexible sheet mounting step, a first side seal continuously on a longitudinal end of the flexible sheet mounted on the toner developing container separated in said container separating step or the another toner developing container and on the toner developing container separated in said container separating step or the another toner developing container, and a second side seal continuously on the other longitudinal end of the flexible sheet mounted on the toner developing container separated in said container separating step or the another toner developing container and on the toner developing container separated in said container separating step or the another toner developing container.

Nagashima teaches a remanufacturing method of remanufacturing a process cartridge comprising: (a) a step of preparing a used process cartridge which comprises a toner developing container, a cleaning container and pins for coupling the toner developing container and the cleaning container at opposite longitudinal ends of the process cartridge; the toner developing container including a toner accommodating portion, a toner supply opening, a developing roller, and a developing blade; the cleaning container including an electrophotographic photosensitive drum; (b) a container separating step of separating the process cartridge into the toner developing container and the cleaning container by disengaging the pins from the process cartridge; (c) a developing roller dismantling step of dismantling the developing roller from the toner developing container separated by said container separating step; (d) a developing blade dismantling step of dismantling the developing blade from the toner developing container

Art Unit: 2852

separated by said container separating step; (e) an elastic member mounting step of mounting an elastic member at a position spaced from the toner accommodating portion to a longitudinally inside portion of an end seal provided adjacent each of opposite longitudinal ends of the developing roller dismounted in said developing roller dismounting step or another developing roller; (f) a flexible sheet mounting step of mounting a flexible sheet to the toner developing container separated in said container separating step or another toner developing container so as to extend along the longitudinal direction of the developing roller on which the elastic member is mounted in said elastic member mounting step when the developing roller on which the elastic member is mounted in said elastic member mounting step is mounted to the toner developing container to which the flexible sheet is mounted in said flexible sheet mounting step and which was separated in said container separating step or to the another toner developing container to which the flexible sheet is mounted in said flexible sheet mounting step; (g) a first and second side seal mounting step of mounting a first side seal continuously on a longitudinal end of the flexible sheet mounted on the toner developing container having the flexible sheet and separated in said container separating step or mounted on the another toner developing container in said flexible sheet mounting step and on the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step, and a second side seal continuously on the other longitudinal end of the flexible sheet mounted on the toner developing container having the flexible sheet and separated in said

Art Unit: 2852

container separating step or mounted on the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step and on the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; (h) a toner refilling step of refilling the toner into the toner accommodating portion of the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and being separated in said container separating step or a toner accommodating portion of the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step, through the toner supply opening of the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and being separated in said container separating step or through a toner supply opening of the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; (i) a developing blade mounting step of mounting the developing blade dismounted in said developing blade dismounting step or another developing blade on the toner developing container having the flexible sheet mounted in said flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; a developing roller mounting step of mounting the developing roller dismounted in said developing roller dismounting step or another developing roller on the toner developing container having the flexible sheet mounted in said

Art Unit: 2852

flexible sheet mounting step and separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step; and (k) a container coupling step of coupling the toner developing container having the flexible sheet mounted in said flexible sheet mounting step, the developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step and being separated in said container separating step or the another toner developing container having the flexible sheet mounted in said flexible sheet mounting step, the developing blade mounted in said developing blade mounting step and the developing roller mounted in said developing roller mounting step with the cleaning container separated in said container separating step or another cleaning container by engaging the pins disengaged in said container separating step or other pins into them. The elastic member is mounted on a side of the end seal. The end seal is made of a plastically deformable material.

Nagashima teaches a that in said developing blade mounting step, a new developing blade or a used developing blade is mounted. In said developing roller mounting step, a new or used developing roller is mounted. The cleaning container includes a cleaning blade mounted thereon and accommodates developer removed from the electrophotographic photosensitive member, and wherein prior to said container coupling step, the electrophotographic photosensitive drum and the cleaning blade are dismounted from the cleaning container, and toner which has been removed from the electrophotographic photosensitive drum and accommodated in the cleaning container, is removed. After the toner is removed, a new or used electrophotographic

Art Unit: 2852

photosensitive drum and a new or used cleaning blade are mounted. The toner supply opening supplies the toner accommodated in the toner accommodating portion to the developing roller, wherein said remanufacturing method is implemented by pulling out a toner seal, for sealing a the toner supply opening provided to supply the tone accommodated in the toner accommodating portion to the developing roller to supply toner accommodated in the toner accommodating portion to the developing roller. The process cartridge comprises a gear fixed co-axially with the electrophotographic photosensitive drum and a gear fixed co-axially with the developing roller, which gears are in meshing engagement, and wherein after said container coupling step, the toner developing container separated in said container separating step or the another toner developing container and the cleaning container are rotated about one of the pins to disengage the gears from each other or to make a back clearance of the meshing engagement larger than that during an image forming operation, and wherein the disengagement or larger back clearance is maintained. The toner developing container separated in said container separating step or the another toner developing container and the cleaning container are rotated toward each other about one of the pins at a portion across from the electrophotographic photosensitive drum, and a tape is stuck on the toner developing container separated in said container separating step or the another toner developing container and the cleaning container to maintain the disengagement or the larger back clearance.

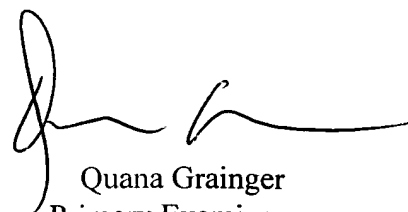
Art Unit: 2852

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quana Grainger whose telephone number is 703-308-7616. The examiner can normally be reached on weekdays between the hours of 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 703-308-1373. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.



Quana Grainger
Primary Examiner
Art Unit 2852

QG
May 5, 2003